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OXALATOS	0
OXALATOE.DWPI,EPAB,JPAB,USPT,PGPB.	1
PHOSPHATE.DWPI,EPAB,JPAB,USPT,PGPB.	309593
PHOSPHATES.DWPI,EPAB,JPAB,USPT,PGPB.	66663
(1 AND ((TRIS ADJ OXALATO) ADJ PHOSPHATE)).USPT,PGPB,JPAB,EPAB,DWPI.	0
(L1 AND TRIS(OXALATO)PHOSPHATE).USPT,PGPB,JPAB,EPAB,DWPI.	0

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<u>L2</u>	L1 AND TRIS(OXALATO)PHOSPHATE	0	<u>L2</u>
<u>L1</u>	PHOSPHATE III	420	<u>L1</u>

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L1

PHOSPHATE III

420

L1

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PHOSPHATES.DWPI,EPAB,JPAB,USPT,PGPB.	66663
((TRIS ADJ OXALATO) ADJ PHOSPHATE).USPT,PGPB,JPAB,EPAB,DWPI.	4
(TRIS(OXALATO)PHOSPHATE).USPT,PGPB,JPAB,EPAB,DWPI.	4

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L3 TRIS(OXALATO)PHOSPHATE

4 L3

L2 L1 AND TRIS(OXALATO)PHOSPHATE

0 L2

L1 PHOSPHATE III

420 L1

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L3: Entry 1 of 4

File: PGPB

Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020161247

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020161247 A1

TITLE: Process for making vitamin E using hydrogen-tris(oxalato) phosphate

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bonrath, Werner	Freiburg		DE	
Netscher, Thomas	Bad Krozingen		DE	
Wietelmann, Ulrich	Friedrichsdorf		DE	

US-CL-CURRENT: 549/411

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC
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☒ 2. Document ID: WO 107450 A1

L3: Entry 2 of 4

File: EPAB

Feb 1, 2001

PUB-NO: WO000107450A1

DOCUMENT-IDENTIFIER: WO 107450 A1

TITLE: TRIS(OXALATO)PHOSPHATES, METHOD FOR THEIR PREPARATION AND THEIR USE

PUBN-DATE: February 1, 2001

INVENTOR-INFORMATION:

NAME	COUNTRY
WIETELMANN, ULRICH	DE
SCHADE, KLAUS	DE
LISCHKA, UWE	DE

ASSIGNEE-INFORMATION:

NAME	COUNTRY
CHEMETALL GMBH	DE
WIETELMANN ULRICH	DE
SCHADE KLAUS	DE
LISCHKA UWE	DE

APPL-NO: EP00004301

APPL-DATE: May 12, 2000

PRIORITY-DATA: DE19933898A (July 22, 1999)

INT-CL (IPC): C07 F 9/6571; H01 M 10/40
EUR-CL (EPC): C07F009/6571; H01M010/40

ABSTRACT:

CHG DATE=20010302 STATUS=O>The invention relates to tris-(oxalato)phosphates of the general formula $MfoundP(C_2O_4)_3$ wherein $M = H$, a metal or $N(R<1>R<2>R<3>R<4>)$, where $R<1>$, $R<2>$, $R<3>$, $R<4>$ are independently H or an alkyl group comprising 1 to 8 C atoms. The invention also relates to a method for preparing such compounds as well as to their use.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC
Draw Desc	Image										

☐ 3. Document ID: CN 1365977 A EP 1227089 A1 US 20020161247 A1 JP 2002284776 A

L3: Entry 3 of 4

File: DWPI

Aug 28, 2002

DERWENT-ACC-NO: 2002-592643

DERWENT-WEEK: 200282

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TITLE: Manufacture of (all-rac)-alpha-tocopherol involves catalyzed reaction of trimethylhydroquinone with isophytol or phytol in the presence of hydrogen tris(oxalato)phosphate as catalyst in organic solvent

INVENTOR: BONRATH, W; NETSCHER, T ; WIETELMANN, U

PRIORITY-DATA: 2001EP-0101026 (January 18, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1365977 A	August 28, 2002		000	C07D311/72
EP 1227089 A1	July 31, 2002	E	011	C07D311/72
US 20020161247 A1	October 31, 2002		000	C07D311/76
JP 2002284776 A	October 3, 2002		009	C07D311/72

INT-CL (IPC): C07 B 61/00; C07 D 311/72; C07 D 311/76

ABSTRACTED-PUB-NO: EP 1227089A

BASIC-ABSTRACT:

NOVELTY - An (all-rac)- alpha -tocopherol is manufactured by the catalyzed reaction of trimethylhydroquinone with isophytol or phytol in the presence of hydrogen tris(oxalato)phosphate as the catalyst in an organic solvent.

USE - For the manufacture of (all-rac)- alpha -tocopherol.

ADVANTAGE - The use of catalyst in the invention avoids corrosion, is non-toxic, does not contaminate the environment, e.g. with chlorinated by-products or heavy metal ions, and catalyzes the desired reaction in high yields and selectivity. The catalyst can display its activity in small, really catalytic, and can be readily separable and re-usable several times.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
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4. Document ID: CN 1361787 A DE 19933898 A1 WO 200107450 A1 EP 1203001 A1
KR 2002013967 A

L3: Entry 4 of 4

File: DWPI

Jul 31, 2002

DERWENT-ACC-NO: 2001-235979

DERWENT-WEEK: 200279

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TITLE: Novel halogen-free metal tris(oxalato)phosphates useful as conductive salts in electrochemical storage devices such as lithium batteries

INVENTOR: LISCHKA, U; SCHADE, K ; WIETELMANN, U

PRIORITY-DATA: 1999DE-1033898 (July 22, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1361787 A	July 31, 2002		000	C07F009/6571
DE 19933898 A1	February 1, 2001		008	C07F009/141
WO 200107450 A1	February 1, 2001	G	000	C07F009/6571
EP 1203001 A1	May 8, 2002	G	000	C07F009/6571
KR 2002013967 A	February 21, 2002		000	C07F009/6571

INT-CL (IPC): C07 F 9/141; C07 F 9/6571; H01 M 10/40

ABSTRACTED-PUB-NO: DE 19933898A

BASIC-ABSTRACT:

NOVELTY - Metal tris(oxalato)phosphates are new.DETAILED DESCRIPTION - Metal tris(oxalato)phosphates of formula (I) are new.

M = Lithium (Li), sodium (Na), potassium (K), rubidium (Rb), cesium (Cs) or N(R1R2R3R4);

R1 - R4 = H or 1-8C alkyl.

INDEPENDENT CLAIMS are also included for the following:

- (i) lithium tris(oxalato)phosphate Li(P(C2O4)3);
- (ii) Na tris(oxalato)phosphate Na(P(C2O4)3); and
- (iii) preparation of (I).

USE - Compound of formula (I) is used as conductive salts in electrochemical storage devices (e.g., batteries or supercondensers), the use of the Li compound being specifically claimed in Li batteries.

ADVANTAGE - The problems associated with prior-art compounds such as borate complexes are overcome. (I) is halogen-free, of good-to-very good solubility in aprotic solvents, is electrochemically- and thermally-stable and gives electrolytes with good conductivity. Conductivity values up to 9.7mS/cm can be achieved.

DESCRIPTION OF DRAWING(S) - The drawing is a cyclovoltammogram plotting the current in mA against the potential against Li/Li+ for a solution of Li tris(oxalato)phosphate in a 1 : 1 ethylene carbonate/dimethylcarbonate solution. (Drawing includes non-English language text).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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((TRIS ADJ OXALATO) ADJ PHOSPHATE).USPT,PGPB,JPAB,EPAB,DWPI.	4
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